

Patent
Serial No. 10/553,919
Amendment in Reply to Final Office Action of June 12, 2008
and the Advisory Action of August 27, 2008

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Final Office Action dated June 12, 2008 and the Advisory Action dated August 27, 2008. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-5, 8-17 and 19 are pending in the Application. By means of the present amendment, claims 6, 7, and 18 are canceled without prejudice. The Applicants respectfully reserve the right to reintroduce subject matter deleted herein, either at a later time during the prosecution of this application or any continuing applications.

In the Final Office Action, claim 4 is objected to for certain informalities. In response, claim 4 has been amended to remove the informalities noted by the Examiner. Accordingly, withdrawal of the objection to claim 4 is respectfully requested.

In the Final Office Action, claims 1-19 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully disagree and submit that the specification fully complies with the

written description requirement, and reasonably conveys that the inventors, at the time of the application was filed, had possession of the claimed inventions, for at least the following reasons.

Regarding claim 1 (and claims 2-6, 10, and 17 by dependency), the Final Office Action essentially contends that the specification does not support a coating "deposited on the interior surface of a steam generating device". Applicants respectfully disagree. The specification provides ample support for such claim limitation, see, e.g., page 1, lines 18-19, page 2, lines 17-21.

Regarding claim 9, the Final Office Action essentially states that there is no support for the claim feature "between 30 and 100 microns". Applicants respectfully disagree. Indeed, by the Examiner's own admission, the specification supports "around 30 microns to up to 100 microns." This alone provides support for "between 30 and 100 microns." Moreover, claim 9 as originally filed recites "the first layer is between 10 and 100 microns." In view of this disclosure, the rejection is seemingly not well-founded. However, in the interest of expediting consideration and allowance of the claims, claim 9 is amended to recite "a thickness of the first layer is around 30 to 100 μm ."

Furthermore, regarding claim 9, the Final Office Action essentially states that there is no support for the second layer being "between 10 and 25 microns." Without agreeing with the Examiner, and in the interest of expediting consideration and allowance of the claims, claim 9 is amended to recite that the second layer is between 10 and about 15 μm in thickness. The specification provides ample support for such claim limitation, see, e.g., page 6, line 28 (claim 9 as originally filed) and page 5, line 5. The Advisory Action admits support is provided for "'all' second layers ... to a range of 1 to about 15 microns as well as particular support for a thickness of 10 microns for a particular second layer (see, Advisory Action, page 3). Accordingly, it is respectfully submitted that clearly ample support is provided for the range of between 10 and about 15 μm as recited in claim 9.

Furthermore, regarding claim 11, the Final Office Action essentially states that the limitation "wherein the first coating is selected to adhere to a metal surface of the steam generating device" is not supported by the specification. Applicants respectfully disagree. The specification provides ample support for

such claim limitation, see, e.g., page 2, lines 14-24, page 4, line 20-21, page 5, lines 1-2 and lines 13-14. However, in the interest of expediting consideration and allowance of the claims, claim 11 is amended to recite "wherein the first layer is adhered to the second layer." Ample support for this limitation is found, for example, on page 4, lines 1-2 of the present application.

Furthermore, regarding claims 12 and 15, the Final Office Action states that there is no support in the originally filed specification for "substantially". Without agreeing with the Examiner, and in the interest of advancing prosecution, claims 12 and 15 are amended to delete the term "substantially".

With further regard to claims 12 and 15 (and claims 13 and 14 by dependency), the Final Office Action states that there is no support for "properties" (as recited in the claims) as the specification only discusses "porosity". Applicants respectfully disagree. By the Examiner's own admission, the specification supports, at the very least, changes in the porosity "properties" of the first and second layers can be achieved based on applying different deposition techniques or inclusion of different binder to filler ratios. In addition, other properties such as density,

layer thickness and particle volume fraction are other properties that are determined, in part, by such application techniques and binder to filler ratios (see, e.g., page 2, line 29 - page 3, line 13). However, in the interest of expediting consideration and allowance of the present patent application, claim 12 is amended to recite "wherein at least one of porosity, density, particle volume fraction, layer thickness, and pore size of the first and second layers are determined by applying a different technique to deposit each of the first and second layers" and claim 15 is amended to recite "wherein at least one of porosity, density, particle volume fraction, and pore size of the first and second layers are determined by selecting different binder to filler ratios for each of the first and second layers." Support for these particular properties is found, for example, on page 2, line 30 through page 3, line 13.

With regard to claim 16, the Final Office Action essentially states that there is no support in the specification for "wherein each of the first layer and the second layer are selected to have a composition that is thermally stable." It is respectfully submitted that the subject matter of claim 16 is amply supported by

the specification, see, e.g., page 3, lines 14-17. However, in the interest of advancing consideration and allowance of the claims, claim 16 is amended to recite "wherein the first layer has a composition that is thermally stable." Ample support for this feature is found, for example, on page 3, lines 18-19 of the present application.

With regard to claim 19, the Final Office Action essentially states that there is no support in the specification for the limitation of "choosing the layers based on their ability to be co-cured". Without agreeing with the Examiner, and in the interest of advancing prosecution, claim 19 has been amended to remove the phrase "selected to be". In any event, the subject matter of claim 19 is amply supported by the specification, see, e.g., page 4, lines 5-7.

In view of the above, Applicants respectfully submit that claims 1-5, 8-17 and 19 are supported by the specification and comply with the written description requirements under 35 U.S.C. §112, first paragraph. Accordingly, withdrawal of the rejections under 35 U.S.C. §112, first paragraph is requested.

In the Final Office Action, claims 12-15 and 18 are rejected

under 35 U.S.C. §112, second paragraph as allegedly being indefinite for various reasons identified in the Final Office Action. It is respectfully submitted that each of the identified claims 12-15 is modified to cure the noted issues and the rejection of claim 18 is moot in view of the cancellation of claim 18. Accordingly, it is respectfully submitted that claims 12-15 are in proper form and it is respectfully requested that these rejections under 35 U.S.C. §112, second paragraph be withdrawn.

In the Final Office Action, claims 1-4, 6-8, 10, 16 and 18 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 4,576,864 to Krautter ("Krautter"). In addition, claims 1-3, 10, 16 and 19 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 5,390,432 to Boulud ("Boulud I"). Further, claims 1, 2, 5-7, 10, 11, 16, 18 and 19 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 6,684,539 to Boulud et al ("Boulud II"). Further, claims 3 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Boulud II in view of Boulud I, claim 9 is rejected under 35 U.S.C. §103(a) as being unpatentable over either Boulud II or Boulud I, and claim 17 is rejected under 35 U.S.C.

§103(a) as being unpatentable over Boulud II. It is respectfully submitted that claims 1-5, 8-17 and 19 are allowable over the cited references for at least the following reasons.

As previously explained, Krautter shows a roofing application wherein a non-water soluble adhesive is deposited over a plastic base to adhere a water spreading layer to the plastic base. The water spreading layer of Krautter is directed to a layer to avoid a formation of droplets on ceilings of greenhouses, pool enclosures, etc., due to condensation (see, Krautter, Col. 1, lines 13-26). It is respectfully submitted that the coating of Krautter may not be suitably applied onto "an interior surface of a steam-generating device" as recited in the claims of the present application.

Moreover, it is respectfully submitted that the recitation in the body of claim 1, for example, of a first layer deposited on the interior surface of the steam-generating device is more than just a mere statement of intended use. As may be readily appreciated, a coating that may be suitably applied to an interior portion of a steam-generating device requires different properties than a coating that is applied to a plastic base, such as the plastic sheeting material of Krautter (see, col. 2, lines 52-64). Further,

since in claim 1, the "first layer [is] deposited on the interior surface of the steam-generating device", the interior surface of the steam generating device is actively recited as one of the features of the claim. Krautter fails to disclose or suggest at least this feature as well as other features of the claims.

While the Final Office Action admits that Krautter fails to disclose a steam generating device, it has taken a position that the layers of Krautter "are more than capable of being applied in a steam generating device." It is respectfully submitted that "more than capable" is not the standard for determination of whether a claim is anticipated by a prior art reference. The MPEP §2131 provides that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. The identical invention must be shown in as complete detail as contained in the claim.

Applicants submit that the Final Office Action fails to make a *prima facie* case of anticipation because the layers applied to a roofing material do not satisfy MPEP §2131.

In view of the above, it is respectfully submitted Krautter does not disclose or suggest, a coating for an interior surface of a steam-generating device that amongst other patentable elements, comprises (illustrative emphasis provided) "a first layer deposited on the interior surface of the steam-generating device and a second layer deposited over the first layer, wherein the first layer is essentially impermeable to water and is thermally insulating and the second layer is hydrophilic, wherein the second layer comprises inorganic particles, and wherein the inorganic particles include clay particles or Al_2O_3 particles" as recited in independent claim 1. Krautter teaches a coating for plastic sheeting that is certainly not suitable for an application over an interior surface of a steam-generating device and does not teach the inorganic particles include clay particles or Al_2O_3 particles.

Moreover, it is respectfully submitted that at the very least, independent claims 1, 12 and 15 are not anticipated by either Boulud I or Boulud II. For example, with regard to claim 1, by Examiner's admission, neither Boulud I or Boulud II discloses or suggests, a coating for an interior surface of a steam-generating device that amongst other patentable elements, comprises

(illustrative emphasis provided) "wherein the second layer comprises inorganic particles, and wherein the inorganic particles include clay particles or Al₂O₃ particles" as recited in claim 1.

Moreover, with regard to claim 12, by the Examiner's admission, neither Boulud I or Boulud II discloses or suggests, a coating for an interior surface of a steam-generating device that amongst other patentable elements, comprises (illustrative emphasis added) "wherein a composition of the first layer and the second layer is similar and wherein at least one of porosity, density, particle volume fraction, layer thickness, and pore size of the first and second layers are determined by applying a different technique to deposit each of the first and second layers" as recited in claim 12.

Moreover, with regard to claim 15, by the Examiner's admission, neither Boulud I or Boulud II discloses or suggests, a coating for an interior surface of a steam-generating device that amongst other patentable elements, comprises (illustrative emphasis provided) "wherein a composition of starter materials of the first layer and the second layer are similar and wherein at least one of porosity, density, particle volume fraction, and pore size of the

first and second layers are determined by selecting different binder to filler ratios for each of the first and second layers" as recited in claim 15.

Based on the foregoing, Applicants respectfully submit that independent claims 1, 12 and 15 are allowable over Krautter, Boulud I or Boulud II, either singularly or in any combination, and notice to this effect is earnestly solicited. Claims 2, 4-5, and 8-11 depend from claim 1, claims 13 and 14 depend from claim 12, and claims 16, 17 and 19 depend from claim 15 and, accordingly, are allowable over the cited art of record for at least the same reasons as claims 1, 12 and 15, as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position.

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should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicants have made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

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